

REMARKS

Entry of the foregoing, reexamination and reconsideration of the subject application are respectfully requested in light of the amendments above and the comments which follow.

As correctly noted in the Office Action Summary, claims 19-40 were pending. By the present response, claims 19 and 33 have been amended and claims 41-43 have been added. Thus, upon entry of the present response, claims 19-43 are pending and await further consideration on the merits.

Support for the foregoing amendments can be found, for example, in at least the following locations in the original disclosure: page 4, lines 1-4; page 9, lines 1-8; page 10, lines 4-6; and the original claims.

CLAIM REJECTIONS UNDER 35 U.S.C. §112

Claim 33 stands rejected under 35 U.S.C. §112, second paragraph, on the grounds set forth on page 2 of the Official Action.

By the present response, applicants have amended claim 33 in a manner which addresses the above-noted rejection without narrowing the scope thereof. Therefore, reconsideration and withdrawal of the rejection is respectfully requested.

CLAIM REJECTIONS UNDER 35 U.S.C. §102

Claims 19-21, 23-25, 27-34 and 35-40 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,254,207 (hereafter "*Landoll et al.*") or U.S. Patent No. 4,102,846 (hereafter "*Bentley et al.*") on the grounds set forth on

page 2 of the Official Action. For at least the reasons noted below, this rejection should be withdrawn.

The present invention is directed to a process for preparing polyamide particles which advantageously takes advantage of mild temperatures, thereby making it possible to avoid potential degradation of the polyamide material, and also makes it possible to obtain substantially spherical particles having a satisfactory size distribution.

A process performed according to the principles of the present invention is set forth in claim 19. Claim 19 recites:

19. *A process for preparing spherical polyamide particles having a mean diameter of less than 1 mm, comprising the following steps:*
- a) preparing a dispersion of a first liquid which comprises polyamide monomers, in a second inert liquid thereby forming a reaction medium;*
 - b) polymerizing the monomers by polycondensation and/or polyaddition by heating the reaction medium and maintaining the heating at a temperature below the melting point of the polyamide with the desired degree of polymerization;*
 - c) optionally, decompressing the reaction medium to atmospheric pressure;*
 - d) optionally, gradually cooling the reaction medium; and*
 - e) recovering the spherical polyamide particles therefrom.*

Landoll et al. fails to anticipate the process set forth in claim 19.

Landoll et al. is directed to a process for producing spherical particles or crystalline polymers. *Landoll et al.* teaches a process which includes:

A fluid mixture of a crystalline, normally solid condensation-type polymer in an aprotic liquid which is a non-solvent for the polymer and which contains dissolved or dispersed therein from 0.1 to 20 percent based on the weight of the polymer of an acid-modified polymer of propylene at a temperature above the crystalline melting

point of the condensation-type polymer until a dispersion of small liquid particles is formed. . .(emphasis added)
(col. 2, lines 52-59)

By contrast, as readily apparent from the above, claim 19 sets forth a process which requires "maintaining the heating at a temperature below the melting point of the polyamide" (emphasis added). Therefore, *Landoll et al.* clearly fails to anticipate at least this aspect of the process of claim 19.

Moreover, the process of claim 19 requires "preparing a dispersion of a first liquid which comprises polyamide monomers" (emphasis added). By contrast, *Landoll et al.* teaches forming a mixture of crystalline normally solid polymer. Thus, *Landoll et al.* also fails to anticipate this aspect of claim 19.

Finally, the process of *Landoll et al.* apparently involves the formation of a mixture and which may include a liquid phase with a solid phase suspended therein. However, claim 19 requires preparation of a dispersion of a first liquid in a second liquid (see, e.g., step(a) of claim 19). Nowhere does *Landoll et al.* describe the formation of a dispersion of a first liquid and a second liquid as further required by claim 19.

Thus, for at least the reasons noted above, *Landoll et al.* clearly fails to anticipate claim 19. The remaining claims depend either directly or indirectly upon claim 19. Thus, these claims are also distinguishable over *Landoll et al.* for at least the same reasons noted above.

Bentley et al. is directed to stable dispersions of polymer particles containing subparticles of a solid modifying agent and related processes performing the same. The Examiner identifies Example 1 as supporting the grounds for rejection. However, as noted above, claim 19 requires, *inter alia* "preparing a dispersion of a

first liquid which comprises polyamide monomers" (emphasis added). By contrast, *Bentley et al.* fails to disclose preparing such a dispersion. The polymer materials described in association with Example 1 are copolymers and therefore fails to satisfy at least the above-noted aspect of claim 19.

Moreover, claim 19 requires the preparation of a dispersion of a first liquid and a second liquid. *Bentley et al.* fails to include any disclosure whatsoever which would indicate to one of ordinary skill in the art that the dispersion of a first liquid and a second liquid is ever formed. In particular, with respect to Example 1, the only apparent dispersion appears to be solid particles within a liquid phase. This fails to satisfy the requirements of claim 19. It is further noted that claim 19 requires polymerization of the reaction medium formed by the dispersion of the first liquid in the second liquid. By contrast, *Bentley et al.* clearly fails to disclose such a polymerization step.

Thus, for at least the reasons noted above, *Bentley et al.* clearly fails to anticipate the process as set forth in claim 19. The remaining claims depend either directly or indirectly upon claim 19. Thus, these claims are also distinguishable over *Bentley et al.* for at least the same reasons noted above.

CLAIM REJECTIONS UNDER 35 U.S.C. §103

Claims 19-21, 23-25, 27-34, and 35-40 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,127,513 to Ohara et al. (hereafter "*Ohara et al.*") on the grounds set forth on page 4 of the Official Action. For at least the reasons noted below, this rejection should be withdrawn.

Ohara et al. is directed to a spherical polyamide materials and processes for preparing the same. *Ohara et al.* teaches "polymerizing monomers for preparing the

polyamide under heating at a temperature higher than the melting points of the monomers. . ." (emphasis added). By contrast, claim 19 clearly requires that polymerization take place at a temperature which is lower than the melting point of the polyamide monomers. Thus, not only does *Ohara et al.* fail to disclose, or even suggest, the process of claim 19, it in fact teaches away from the claimed process.

Moreover, the polymerization medium described by *Ohara et al.* (see, e.g., col. 2, lines 47-53) appears to describe nothing more than perhaps a dispersion of solid particles in a liquid phase. By contrast, the process of claim 19 requires the preparation of the dispersion of a first liquid and a second inert liquid, followed by polymerization of this reaction medium. It is respectfully submitted that *Ohara et al.* fails to disclose, or even suggest, this aspect of the process set forth in claim 19. Thus, for at least the reasons noted above, reconsideration and withdrawal of the rejections is respectfully requested. The remaining claims depend either directly or indirectly upon claim 19. Thus, these claims are also distinguishable over *Ohara et al.* for at least the same reasons noted above.

Claims 22 and 32-34 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Landoll* or *Bentley* in combination with U.S. Patent No. 3,446,782 (hereafter "*Okazaki et al.*") on the grounds set forth on page 4 of the Official Action. For at least the reasons noted below, this rejection should be withdrawn.

Okazaki et al. is applied as set forth on page 5 of the Official Action as allegedly teaching a process for the manufacture of powdery synthetic linear polyamides where the dispersion media for monomers is water. However, even if the teachings of *Okazaki et al.* were appropriately applied in the manner suggested in the grounds for rejection, the claimed invention would not result. Namely, the

applied teachings of *Okazaki et al.* fail to cure the deficiencies previously noted above in connection with the primary references to *Landoll* or *Bentley et al.* Thus, reconsideration and withdrawal of the rejection is respectfully requested.

Claims 19-22, 25-27, 31 and 35-40 stand rejected under 35 U.S.C. §103(a) as being unpatentable over WO 01/68235 to Montasser (cited as equivalent U.S. Patent Application Publication No. 2003/0059473 to Montasser) (hereafter "*Montasser*") on the grounds set forth on page 6 of the Official Action. For at least the reasons noted below, this rejection should be withdrawn.

Montasser is directed to a method for the preparation particles in the form of nanocapsules. The nanocapsules formed by the described process consist of a substance B encapsulated by a wall material formed by the polycondensation of monomer α and β . The process described therein is said to include a first liquid phase having a monomer and a solvent or solvent mixture as well as substance B in solution or suspension, and combining the first liquid phase with the second liquid phase which includes a nonsolvent for the monomer α , but also includes the monomer β and one or more surfactants. The solvent or solvent mixture is described as being miscible in all proportions with the nonsolvent or nonsolvent mixture of the second phase. Thus, due to the miscibility of the second liquid phase within the first liquid phase, it would not seem possible to form the claimed dispersion of a first liquid phase in a second liquid phase as required by claim 19. Moreover, as clearly stated by *Montasser et al.*, the first and liquid phases react with one another because of the polycondensation reaction between the components of the two phases. By contrast, claim 19 requires a second inert liquid phase. In this context, as set forth, for example, on page 9 of the present specification, the term

inert is understood to mean chemically inert in relation to the reaction or polymerization of the monomers (see, e.g. page 9, lines 1-3 of the present specification). Thus, not only does *Montasser* fail to disclose or suggest this second inert liquid phase as required by claim 19, it in fact teaches away from a process which incorporates such an inert liquid phase. Thus, reconsideration and withdrawal of the rejection is respectfully requested. The remaining claims depend either directly or indirectly upon claim 19. Thus, these claims are also distinguishable over *Montasser et al.* for at least the same reasons noted above.

CONCLUSION

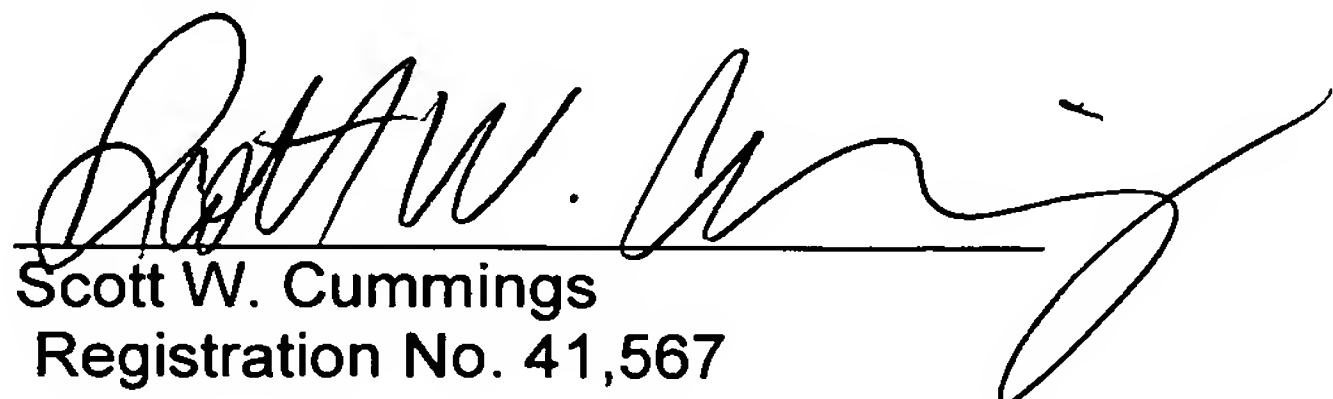
From the foregoing, further and favorable action in the form of a Notice of Allowance is earnestly solicited. Should the Examiner feel that any issues remain, it is requested that the undersigned be contacted so that any such issues may be adequately addressed and prosecution of the instant application expedited.

Respectfully submitted,

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